

## Supplementary Online Content

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**eFigure.** Study Flow Diagram

**eTable 1.** Cohort Exclusion Criteria and Definitions of Diabetes and Statin Use

**eTable 2.** Baseline Characteristics and Incident ASCVD Events Among 1 663 422 Veterans for 10-Year Risk Prediction

**eTable 3.** 5-Year Prediction Models for Composite ASCVD Events and ASCVD Mortality, Without and With Statin Therapy, Age <65

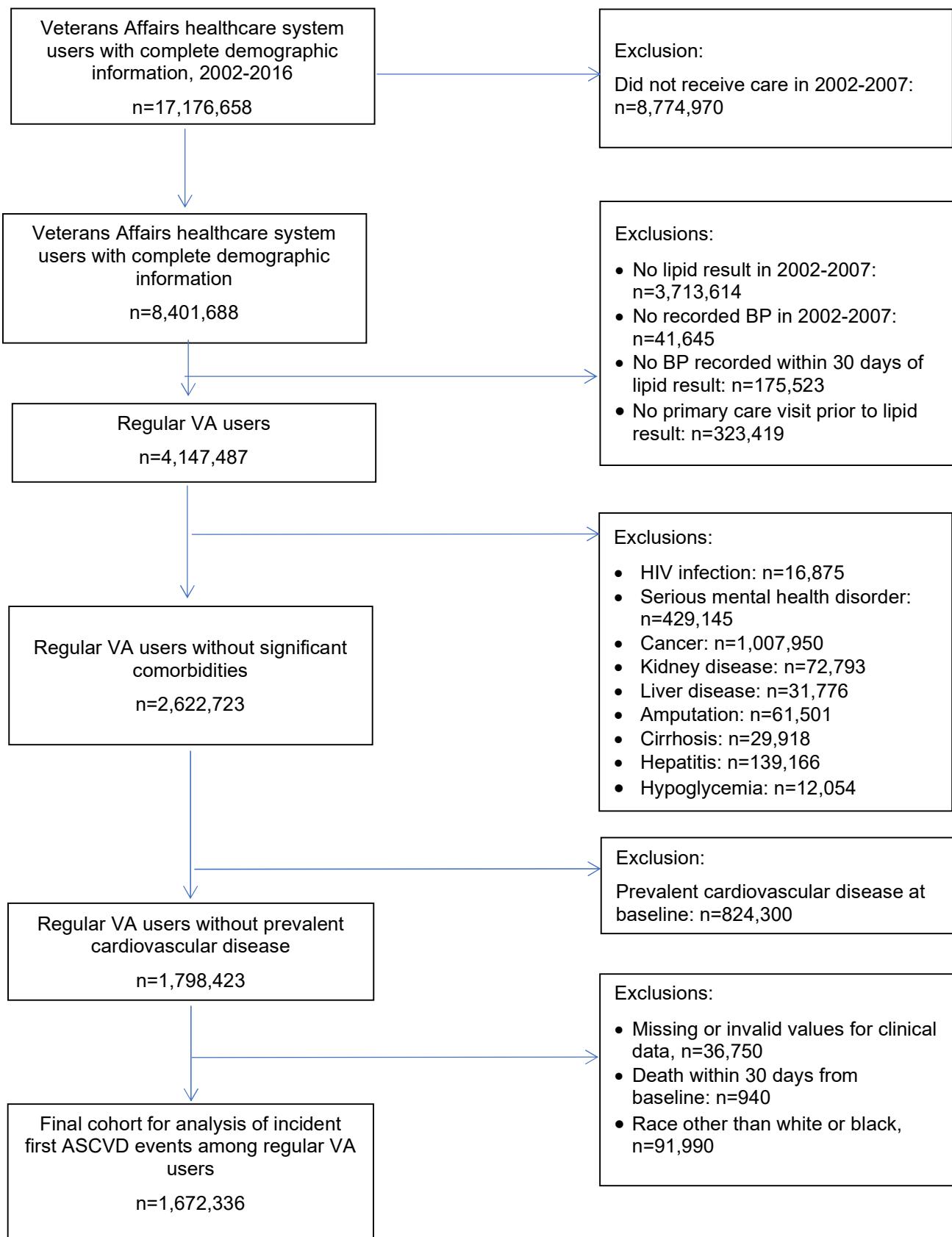
**eTable 4.** 5-Year Prediction Models for Composite ASCVD Events and ASCVD Mortality, Without and With Statin Therapy, Age  $\geq$ 65

**eTable 5.** 10-Year Prediction Models for Composite ASCVD Events and ASCVD Mortality, Without and With Statin Therapy

**eTable 6.** Distribution of Patients Aged 40-79 Years Into Clinically Relevant 5-Year ASCVD Risk Categories by the PCE and Cohort-Derived Models

This supplementary material has been provided by the authors to give readers additional information about their work.

**eFigure.** Study Flow Diagram



**eTable 1.** Cohort Exclusion Criteria and Definitions of Diabetes and Statin Use

Rule	Concept	Values
<b>Exclusion criteria A: 1 inpatient OR 2 outpatient codes</b>	HIV positivity	ICD-9: 042, 795.71
	Chronic kidney disease or end-stage renal disease	ICD-9: 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93; 585.5, 585.6, V45.1, V56.xx, 996.73 Procedure code 38.95
	Liver disease or hepatitis	ICD-9: 571.0, 571.1, 571.2, 571.3, 571.4, 571.5, 571.6, 571.8, 571.9, 573.3, 070.1, 070.2, 070.3, 070.4, 070.5, 070.6, 070.7, 070.8, 070.9
	Cancer, other than non-melanoma skin cancer	ICD-9: 140.00-239.00, except 173.2, 173.4 and 173.9
	Schizophrenia	ICD-9: 295, 301.2, 313.2
	Dementia	ICD-9: 290.x, 291.2, 294.1, 331.x (excluding 331.83), 333.0, 333.4, 797.x, 332.0, 294.8, 046.1, 046.3
<b>Exclusion criterion B: 1 inpatient or outpatient code</b>	Amputation	ICD-9: V49.7x CPT: 24900, 24920, 24930, 27025, 27027, 27122, 27215-27218, 27226-27228, 27235, 27236, 27244, 27245, 27248, 27254, 27590, 27594, 27880, 27881, 27886, 27888, 28805 VA-rated disability condition: 'Amputation', 'Prosthetic'
<b>Diabetes: medication prior to baseline AND either 2 ICD code OR 1 ICD code at a primary care visit</b>	Diabetes medication	Exenatide, insulin, acetohexamide, alogliptin, canagliflozin, chlorpropamide, dapagliflozin, empagliflozin, glimepiride, glipizide, glyburide, linagliptin, metformin, nateglinide, pioglitazone, repaglinide, rosiglitazone, saxagliptin, sitagliptin, tolazamide, tolbutamide, troglitazone, albiglutide, dulaglutide, liraglutide, lixisenatide, pramlintide
	Diabetes diagnosis	ICD-9 250.XX
<b>Statin use</b>	Statin prescription	Atorvastatin, cerivastatin, fluvastatin, lovastatin, pitavastatin, pravastatin, rosuvastatin, simvastatin

Abbreviations: CPT, Current Procedural Terminology; ICD, International Classification of Disease

**eTable 2.** Baseline Characteristics and Incident ASCVD Events Among 1 663 422 Veterans for 10-Year Risk Prediction

Characteristics	Total cohort (n=1,663,422)	ASCVD event (n=121,893)	No ASCVD event (n=1,541,529)	ASCVD death (n=74,230)	No ASCVD death (n=1,589,192)
Age, mean (SD), y	58.0 (13.7)	63.4 (11.6)	57.6 (13.8)	69.5 (11.7)	57.5 (13.6)
Total cholesterol, mean (SD), mg/dL	197.1 (40.6)	199.1 (42.2)	197.0 (39.9)	193.0 (41.1)	197.3 (40.0)
HDL-C, mean (SD), mg/dL	45.9 (14.0)	44.6 (14.2)	46.0 (14.0)	46.1 (15.0)	45.9 (14.0)
Systolic blood pressure, mean (SD), mm Hg	135.7 (18.3)	141.2 (20.2)	135.3 (18.1)	142.3 (20.1)	135.4 (18.1)
Male, No. (%)	1,566,616 (94.2)	118,922 (97.6)	1,1447,694 (93.9)	72,608 (97.8)	1,494,008 (94.0)
White, No. (%)	1,376,108 (82.7)	101,028 (82.9)	1,275,080 (82.7)	64,205 (86.5)	1,311,903 (82.6)
Current smoker, No. (%)	331,384 (19.9)	28,080 (23.0)	303,304 (19.7)	12,495 (16.8)	318,889 (20.1)
Diabetes, No. (%)	288,807 (17.4)	35,153 (28.8)	253,654 (16.5)	20,019 (27.0)	268,788 (16.9)
Blood pressure treatment, No. (%)	680,160 (40.9)	68,567 (56.3)	611,593 (39.7)	45,279 (61.0)	634,881 (39.9)
Statin treatment, No. (%)	310,863 (18.7)	27,589 (22.6)	283,274 (18.4)	16,522 (22.3)	294,341 (18.5)

Abbreviations: HDL-C, high-density lipoprotein cholesterol.

SI conversion factors: To convert total cholesterol and HDL-C to mmol/L, multiply values by 0.0259. To convert systolic blood pressure to kPa, multiply values by 0.133

**eTable 3.** 5-Year Prediction Models for Composite ASCVD Events and ASCVD Mortality, Without and With Statin Therapy, Age <65

Characteristics	Composite ASCVD events				ASCVD mortality			
	Without statin		With statin		Without statin		With statin	
	HR (95% CI)	p	HR (95% CI)	p	HR (95% CI)	p	HR (95% CI)	p
Age, per 5 years	1.29 (1.28, 1.30)	<0.001	1.30 (1.29, 1.31)	<0.001	1.33 (1.31, 1.35)	<0.001	1.34 (1.32, 1.36)	<0.001
Female, vs. male	0.60 (0.57, 0.65)	<0.001	0.60 (0.57, 0.65)	<0.001	0.36 (0.30, 0.41)	<0.001	0.36 (0.30, 0.41)	<0.001
Black race, vs. white	1.11 (1.08, 1.14)	<0.001	1.11 (1.08, 1.14)	<0.001	1.03 (0.98, 1.08)	0.25	1.01 (0.96, 1.06)	0.42
Diabetes, vs. no diabetes	1.72 (1.68, 1.77)	<0.001	1.72 (1.68, 1.77)	<0.001	1.47 (1.40, 1.54)	<0.001	1.52 (1.45, 1.59)	<0.001
Currently smoking vs. not currently smoking	1.58 (1.54, 1.61)	<0.001	1.58 (1.54, 1.61)	<0.001	1.23 (1.17, 1.28)	<0.001	1.22 (1.16, 1.27)	<0.001
Total cholesterol strata, mg/dL								
50-150	1.00		1.00		1.00		1.00	
151-200	1.03 (0.99, 1.07)	0.13	1.03 (0.99, 1.07)	0.13	0.81 (0.76, 0.86)	<0.001	0.79 (0.74, 0.84)	<0.001
201-250	1.19 (1.15, 1.24)	<0.001	1.19 (1.14, 1.24)	<0.001	0.80 (0.74, 0.85)	<0.001	0.77 (0.72, 0.82)	<0.001
>250	1.63 (1.56, 1.70)	<0.001	1.63 (1.56, 1.70)	<0.001	1.05 (0.97, 1.13)	0.27	1.01 (0.94, 1.10)	0.77
HDL-C, per 10 mg/dL	0.93 (0.92, 0.94)	<0.001	0.93 (0.92, 0.94)	<0.001	1.08 (1.07, 1.10)	<0.001	1.08 (1.07, 1.10)	<0.001
Systolic blood pressure, per 10 mmHg	1.12 (1.12, 1.13)	<0.001	1.12 (1.12, 1.13)	<0.001	1.13 (1.12, 1.15)	<0.001	1.13 (1.12, 1.14)	<0.001
Blood pressure treatment, vs. no treatment	1.43 (1.39, 1.45)	<0.001	1.43 (1.39, 1.45)	<0.001	1.61 (1.56, 1.69)	<0.001	1.69 (1.61, 1.75)	<0.001
Statin treatment, vs. no treatment	-	-	1.00 (0.97, 1.00)	0.89	-	-	0.76 (0.72, 0.80)	<0.001

Abbreviations: CI, confidence interval; HDL-C, high-density lipoprotein cholesterol; HR, hazard ratio.

SI conversion factors: To convert total cholesterol and HDL-C to mmol/L, multiply values by 0.0259. To convert systolic blood pressure to kPa, multiply values by 0.133.

**eTable 4.** 5-Year Prediction Models for Composite ASCVD Events and ASCVD Mortality, Without and With Statin Therapy, Age  $\geq 65$ 

Characteristics	Composite ASCVD events				ASCVD mortality			
	Without statin		With statin		Without statin		With statin	
	HR (95% CI)	p	HR (95% CI)	p	HR (95% CI)	p	HR (95% CI)	p
Age, per 5 years	1.33 (1.31, 1.34)	<0.001	1.32 (1.31, 1.33)	<0.001	1.75 (1.73, 1.77)	<0.001	1.73 (1.71, 1.75)	<0.001
Female, vs. male	0.76 (0.70, 0.82)	<0.001	0.76 (0.70, 0.83)	<0.001	0.66 (0.60, 0.72)	<0.001	0.66 (0.60, 0.73)	<0.001
Black race, vs. white	1.41 (1.36, 1.46)	<0.001	1.39 (1.34, 1.44)	<0.001	1.23 (1.17, 1.28)	<0.001	1.20 (1.15, 1.26)	<0.001
Diabetes, vs. no diabetes	1.46 (1.43, 1.50)	<0.001	1.48 (1.44, 1.52)	<0.001	1.30 (1.26, 1.34)	<0.001	1.33 (1.29, 1.37)	<0.001
Currently smoking vs. not currently smoking	1.27 (1.21, 1.32)	<0.001	1.26 (1.21, 1.31)	<0.001	1.14 (1.08, 1.21)	<0.001	1.13 (1.07, 1.19)	0.73
Total cholesterol strata, mg/dL								
50-150	1.00		1.00		1.00		1.00	
151-200	1.00 (0.97, 1.04)	0.97	0.98 (0.95, 1.02)	0.340	0.87 (0.83, 0.90)	<0.001	0.84 (0.81, 0.87)	<0.001
201-250	1.14 (1.10, 1.18)	<0.001	1.10 (1.06, 1.15)	<0.001	0.89 (0.85, 0.93)	<0.001	0.84 (0.80, 0.88)	<0.001
>250	1.40 (1.33, 1.48)	<0.001	1.35 (1.28, 1.43)	<0.001	1.13 (1.06, 1.21)	<0.001	1.07 (1.00, 1.14)	0.06
HDL-C, per 10 mg/dL	0.93 (0.92, 0.94)	<0.001	0.93 (0.93, 0.94)	<0.001	1.00 (0.99, 1.01)	0.39	1.00 (0.99, 1.01)	0.94
Systolic blood pressure, per 10 mmHg	1.06 (1.05, 1.07)	<0.001	1.06 (1.05, 1.07)	<0.001	1.03 (1.03, 1.04)	<0.001	1.03 (1.03, 1.04)	<0.001
Blood pressure treatment, vs. no treatment	1.25 (1.22, 1.28)	<0.001	1.28 (1.25, 1.32)	<0.001	1.30 (1.27, 1.33)	<0.001	1.35 (1.30, 1.39)	<0.001
Statin treatment, vs. no treatment	-	-	0.87 (0.84, 0.89)	<0.001	-	-	0.78 (0.76, 0.81)	<0.001

Abbreviations: CI, confidence interval; HDL-C, high-density lipoprotein cholesterol; HR, hazard ratio.

SI conversion factors: To convert total cholesterol and HDL-C to mmol/L, multiply values by 0.0259. To convert systolic blood pressure to kPa, multiply values by 0.133.

**eTable 5.** 10-Year Prediction Models for Composite ASCVD Events and ASCVD Mortality, Without and With Statin Therapy

Characteristics	Composite ASCVD events				ASCVD mortality			
	Without statin		With statin		Without statin		With statin	
	HR (95% CI)	p	HR (95% CI)	p	HR (95% CI)	p	HR (95% CI)	p
Age, per 5 years	1.22 (1.22, 1.23)	<0.001	1.22 (1.22, 1.23)	<0.001	1.54 (1.53, 1.55)	<0.001	1.54 (1.53, 1.54)	<0.001
Female, vs. male	0.66 (0.64, 0.69)	<0.001	0.66 (0.64, 0.69)	<0.001	0.67 (0.63, 0.70)	<0.001	0.67 (0.63, 0.70)	<0.001
Black race, vs. white	1.21 (1.20, 1.23)	<0.001	1.21 (1.19, 1.23)	<0.001	1.18 (1.15, 1.20)	<0.001	1.15 (1.13, 1.18)	<0.001
Diabetes, vs. no diabetes	1.63 (1.61, 1.65)	<0.001	1.65 (1.62, 1.67)	<0.001	1.41 (1.39, 1.44)	<0.001	1.45 (1.42, 1.47)	<0.001
Current smoking, vs. not currently smoking	1.68 (1.65, 1.70)	<0.001	1.67 (1.65, 1.70)	<0.001	1.74 (1.70, 1.77)	<0.001	1.72 (1.69, 1.76)	<0.001
Total cholesterol strata, mg/dL								
50-150	Ref		Ref		Ref		Ref	
151-200	1.03 (1.02, 1.05)	<0.05	1.03 (1.01, 1.05)	<0.05	0.87 (0.85, 0.89)	<0.001	0.85 (0.83, 0.86)	<0.001
201-250	1.19 (1.16, 1.21)	<0.001	1.17 (1.15, 1.19)	<0.001	0.88 (0.86, 0.90)	<0.001	0.84 (0.82, 0.86)	<0.001
>250	1.53 (1.50, 1.57)	<0.001	1.51 (1.47, 1.55)	<0.001	1.10 (1.06, 1.13)	<0.001	1.04 (1.01, 1.08)	<0.05
HDL-C, per 10 mg/dL	0.94 (0.93, 0.94)	<0.001	0.94 (0.93, 0.94)	<0.001	1.01 (1.01, 1.02)	<0.05	1.01 (1.01, 1.02)	<0.001
Systolic blood pressure, per 10 mmHg	1.09 (1.09, 1.10)	<0.001	1.09 (1.09, 1.10)	<0.001	1.07 (1.07, 1.08)	<0.001	1.07 (1.07, 1.08)	<0.001
Blood pressure treatment, vs. no treatment	1.33 (1.32, 1.35)	<0.001	1.35 (1.33, 1.37)	<0.001	1.37 (1.35, 1.39)	<0.001	1.43 (1.39, 1.45)	<0.001
Statin treatment, vs. no treatment	-	-	0.92 (0.91, 0.94)	<0.001	-	-	0.79 (0.78, 0.80)	<0.001

Abbreviations: CI, confidence interval; HDL-C, high-density lipoprotein cholesterol; HR, hazard ratio.

SI conversion factors: To convert total cholesterol and HDL-C to mmol/L, multiply values by 0.0259. To convert systolic blood pressure to kPa, multiply values by 0.133.

**eTable 6.** Distribution of Patients Aged 40-79 Years Into Clinically Relevant 5-Year ASCVD Risk Categories by the PCE and Cohort-Derived Models

WHITE MEN	5-year ASCVD RISK	VA cohort-derived model No. (%)					BLACK MEN	VA cohort-derived model No. (%)				
		0-2.5%	2.5%-3.75%	3.75%-10%	>10%	TOTAL		0-2.5%	2.5%-3.75%	3.75%-10%	>10%	TOTAL
PCE No. (%)	0-2.5%	156958 13.81	4575 0.40	0 0.00	0 0.00	<b>161533</b> <b>14.22</b>	0-2.5%	43062 19.71	136 0.06	0 0.00	0 0.00	<b>43198</b> <b>19.77</b>
	2.5%-3.75%	61987 5.46	67035 5.90	106 0.01	0 0.00	<b>129128</b> <b>11.37</b>	2.5%-3.75%	20314 9.30	18905 8.65	241 0.11	0 0.00	<b>39460</b> <b>18.06</b>
	3.75%-10%	1663 0.15	209488 18.44	268463 23.63	0 0.00	<b>479614</b> <b>42.21</b>	3.75%-10%	1290 0.59	28344 12.97	64847 29.68	35 0.02	<b>94516</b> <b>43.26</b>
	>10%	0 0.00	86 0.01	323337 28.46	42463 3.74	<b>365886</b> <b>32.20</b>	>10%	0 0.00	0 0.00	25435 11.64	15854 7.26	<b>41289</b> <b>18.90</b>
	TOTAL	<b>220608</b> <b>19.42</b>	<b>281184</b> <b>24.75</b>	<b>591906</b> <b>52.10</b>	<b>42463</b> <b>3.74</b>	<b>1136161</b> <b>100.00</b>	TOTAL	<b>64666</b> <b>29.60</b>	<b>47385</b> <b>21.69</b>	<b>90523</b> <b>41.44</b>	<b>15889</b> <b>7.27</b>	<b>218463</b> <b>100.00</b>
<hr/>												
WHITE WOMEN							BLACK WOMEN					
PCE No. (%)	0-2.5%	31912 71.88	1662 3.74	7 0.02	0 0.00	<b>33581</b> <b>75.63</b>	0-2.5%	11792 73.54	279 1.74	16 0.10	0 0.00	<b>12087</b> <b>75.38</b>
	2.5%-3.75%	724 1.63	2170 4.89	670 1.51	0 0.00	<b>3564</b> <b>8.03</b>	2.5%-3.75%	675 4.21	648 4.04	83 0.52	0 0.00	<b>1406</b> <b>8.77</b>
	3.75%-10%	198 0.45	1422 3.20	3391 7.64	14 0.03	<b>5025</b> <b>11.32</b>	3.75%-10%	117 0.73	702 4.38	1182 7.37	1 0.01	<b>2002</b> <b>12.49</b>
	>10%	4 0.01	117 0.26	1731 3.90	377 0.85	<b>2229</b> <b>5.02</b>	>10%	4 0.02	13 0.08	368 2.30	154 0.96	<b>539</b> <b>3.36</b>
	TOTAL	<b>32838</b> <b>73.96</b>	<b>5371</b> <b>12.10</b>	<b>5799</b> <b>13.06</b>	<b>391</b> <b>0.88</b>	<b>44399</b> <b>100.00</b>	TOTAL	<b>12588</b> <b>78.51</b>	<b>1642</b> <b>10.24</b>	<b>1649</b> <b>10.28</b>	<b>155</b> <b>0.97</b>	<b>16034</b> <b>100.00</b>

Abbreviations: ASCVD, atherosclerotic cardiovascular disease; PCE, pooled cohort equation.